



Missouri
Department of
Natural Resources

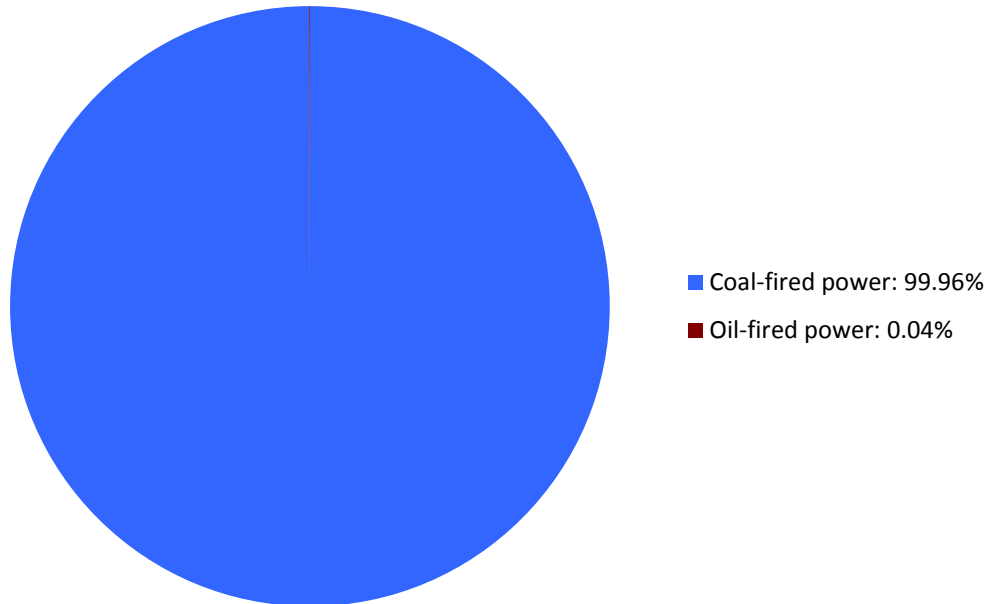
Power Plant: Sioux
Plant Owner: Union Electric Company
Power generated in 2009 from non-renewable and renewable sources

| | Fuel Consumption, MMBTUs | Percent of Total | | Net Electric Power Generated in 2009 (MWh) | Percent of Total | |
|------------------------------|--------------------------------|------------------|---------|---|------------------|---------|
| Non-renewable sources | | | | | | |
| Coal-fired power | 59,546,886 | 99.96% | | 5,758,067 | 99.96% | |
| Natural gas-fired power | | | | | | |
| Oil-fired power | 25,786 | 0.04% | | 2,440 | 0.04% | |
| Nuclear power | | | | | | |
| Other non-renewable power | | | | | | |
| Non-renewable total | 59,572,672 | 100.00% | 100.00% | 5,760,507 | 100.00% | 100.00% |
| | | | | | | |
| Renewable sources | | | | | | |
| Hydroelectric Power | | | | | | |
| Wind | | | | | | |
| Waste and biomass | | | | | | |
| Solar | | | | | | |
| Geothermal | | | | | | |
| Landfill Gas | | | | | | |
| Renewable total | 0 | 0.00% | 0.00% | 0 | 0.00% | 0.00% |
| Grand total all sources | 59,572,672 | | 100.00% | 5,760,507 | | 100.00% |

| Fuel Type | Physical Units | Number of Units |
|----------------------------|----------------|-----------------|
| Bituminous Coal | Short Tons | 716,417 |
| Sub-Bituminous Coal | Short Tons | 2,426,200 |
| Distillate Fuel Oil | Barrels | 4,481 |



Net Generation by Fuel Type, 2009 for Sioux





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Sioux
Emissions from Electricity Generated in 2009

| Plant | Carbon Dioxide(CO2) (Tons) | Carbon Monoxide(CO) (Tons) | Ammonia (NH3) (Tons) | Nitrogen Oxides (NOx) (Tons) | Sulfur Dioxides (SO2) (Tons) |
|--------------|----------------------------------|----------------------------------|-------------------------|---------------------------------|---------------------------------|
| Sioux | 5,558,206.67 | 753.81 | 0.85 | 6,640.50 | 46,457.47 |

| Plant | Volatile Organic Compounds (VOC) (Tons) | Course Particulate Matter (PM10) (Tons) | Fine Particulate Matter (PM2.5) (Tons) | Mercury (Hg) (LBS) |
|--------------|---|--|--|-----------------------|
| Sioux | 165.62 | 463.82 | 438.63 | 306.00 |

'NV' = Emissions value not available.



Pollution controls installed on Sioux

| SO2 Controls | | | |
|---------------------|---------------------------|--------------|------------------------|
| Plant | Control Equipment | Sorbent Type | Operational Efficiency |
| Sioux | No SO2 Controls Installed | | |

| NOX Controls | | | | |
|---------------------|-------------------------------------|------------------------------|--------------------|--------------------|
| Plant | Device Type | Description | Capture Efficiency | Control Efficiency |
| Sioux | SCR (SELECTIVE CATALYTIC REDUCTION) | SCR FOR EMERGENCY GENERATORS | 100.00% | 90.00% |

Data Sources

- Emissions Data: Missouri Department of Natural Resources, Air Pollution Control Program, Missouri Emissions Inventory System (MOEIS)
<http://www.dnr.mo.gov/env/apcp/moeis/emissionsreporting.htm>
- CO2 Emissions calculated by Missouri Department of Natural Resources, Division of Energy, from EIA Fuel Consumption Data
- Fuel Consumption and Generation Data: United States Energy Information Administration, Form 923, United States Department of Energy
http://www.eia.gov/cneaf/electricity/page/eia906_920.html